CLAIMS

What is claimed is:

1. A space vacancy notification system comprising:

at least one object detector;

at least one processor in communication with said at least one object detector and receiving space occupancy information therefrom, wherein said at least one processor is also in communication with a data distribution network; and

a database accessible by said processor wherein said database includes a list of space identifiers associated with corresponding space occupancy information.

2. A space vacancy notification system according to claim 1 further comprising means for graphically displaying space occupancy data.

3. A space vacancy notification system according to claim 2 wherein said means for graphically displaying space occupancy data incorporates at least one electronic map database such that space occupancy data is displayed at a map position indicative of said space location.

4. A space vacancy notification system according to claim 1 wherein said at least one detector is an ultrasonic metal sensor capable of detecting the presence or absence of an automobile in a parking space.

5. A space vacancy notification system according to claim 1 wherein said at least one object detector is a machine vision system.

6. A space vacancy notification system according to claim 1 wherein said at least one processor is a general purpose computer system that is programmed to maintain said database and periodically update said database by reading space occupancy data from said at least one object detectors and writing said space occupancy data to said database.

7. A space vacancy notification system according to claim 6 wherein said general purpose computer is programmed to maintain said database and periodically update said database by reading space occupancy data and corresponding space identification data from said at least one object detector and writing said space occupancy data and said corresponding space identification data to said database.

8. A space vacancy notification system according to claim 1 wherein said data distribution network includes the internet.

9. A parking space locating system comprising:

at least one vehicle detector disposed proximately to an associated parking space and configured to output an occupied /vacant signal along with an associated space identifier according to whether said vehicle detector detects that a vehicle is present/absent in/from said associated parking space respectively;

a processor system in communication with said at least one vehicle detector via at least one communication link;

wherein said processor system is programmed to receive at least one of said occupied/vacancy signals along with said associated space identifiers and maintain an updated database of said occupied/vacant signals along with associated space identifiers,

wherein said processor system integrates said database with geographical map data including a geographical area of said parking space(s) and generates a data structure which is capable of being displayed on a computer device screen as a graphical map, said graphical map having sufficient detail to distinguish individual parking spaces, wherein said occupied/vacant signal is indicated at a corresponding location on said graphical map;

wherein said processor system is further programmed and configured to quickly communicate updated graphical map data structures including updated occupied/vacant signal indication to a network.

10. The system according to claim 9 wherein said network comprises a publicly accessible network.

11. The system according to claim 9 wherein said network includes the internet.

12. The system according to claim 9 wherein said at least one vehicle detector is disposed in a parking meter.

13. The system according to claim 9 wherein said at least one communication link is an electrical transmission line.

14. The system according to claim 9 wherein said at least one communication link is a microwave link.

15. The system according to claim 9 wherein said at least one communication link is a fiber optic link.

16. The system according to claim 9 wherein said at least one vehicle detector is an ultrasonic metal detector.

17. A method of notifying motorists of vacant parking space locations comprising the steps of:

detecting the presence or absence of vehicle in at least one identifiable parking space ;

generating a signal to represent the presence or absence of a vehicle in said at least one identifiable parking space;

associating said signal with a respective space identifier;

interpreting said signal along with said respective space identifier as space identifier data;

integrating said space identifier data with digital street-map data describing an area including said at least one identifiable parking space to form an active street-map.

18. The method according to claim 17 further comprising the step of :

communicating said active street-map to a network..

19. The method according to claim 17 further comprising the steps of:

communicating said active street map to a mobile-accessible network;

determining a user's location using GPS information;

displaying an active-street map of an area including the user's position.

20. The method according to claim 17 further comprising the steps of:

periodically updating said active street-map by repeating said step of interpreting said signal along with said respective space identifier as space identifier data; and

repeating said step of integrating said space identifier data with digital street-map data describing an area including said at least one identifiable parking space to form an active street-map.